

Issues Relating to the Indiana Department of Environmental Management

May 1994

Environmental Management
Evaluation Committee

Indiana Legislative Services Agency

Legislative Evaluation and Oversight

The Office of Fiscal and Management Analysis is a division within the Legislative Services Agency that performs fiscal, budgetary and management analysis. Within this office teams of program analysts evaluate state agency programs and activities as set forth in IC 2-5-21.

The goal of Legislative Evaluation and Oversight is to improve the legislative decision-making process and, ultimately, state government operations by providing information about the performance of state agencies and programs through evaluation.

The evaluation teams prepare reports for the Legislative Council in accordance with IC 2-5-21-9. The published reports describe state programs, analyze management practices, evaluate outcomes, and include other items as directed by the Legislative Evaluation and Oversight Policy Subcommittee of the Legislative Council. The report is used by an evaluation committee to determine the need for legislative action.

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Preface

Each year the Legislative Services Agency prepares reports for the Legislative Council in accordance with IC 2-5-21. This report concerns issues relating to the Indiana Department of Environmental Management. It has been prepared for use by the Environmental Management Evaluation Committee.

This report gives special attention to:

(A) the number of permits requested by year, the number of permits acted upon by year, the number of permits pending by year, and the complexity of permits by level (simple, medium, or complex);

(B) the number of IDEM staff, turnover of staff (especially technical staff), steps necessary to approve a permit, quality of programs, Superfund clean-up and billing, Superfund collections, number of staff assigned to Superfund issues, amount of Superfund dollars available, Indiana's percentage of federal Superfund resources, environmental issues that do not receive adequate resources and what is necessary to address such issues, and examination of the fee structure and general fund revenues.

We gratefully acknowledge all those who assisted in the preparation of this report. The staff of those entities being reviewed were extremely professional and objective in their response to requests for information.

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Chapter 1: Environmental Permits

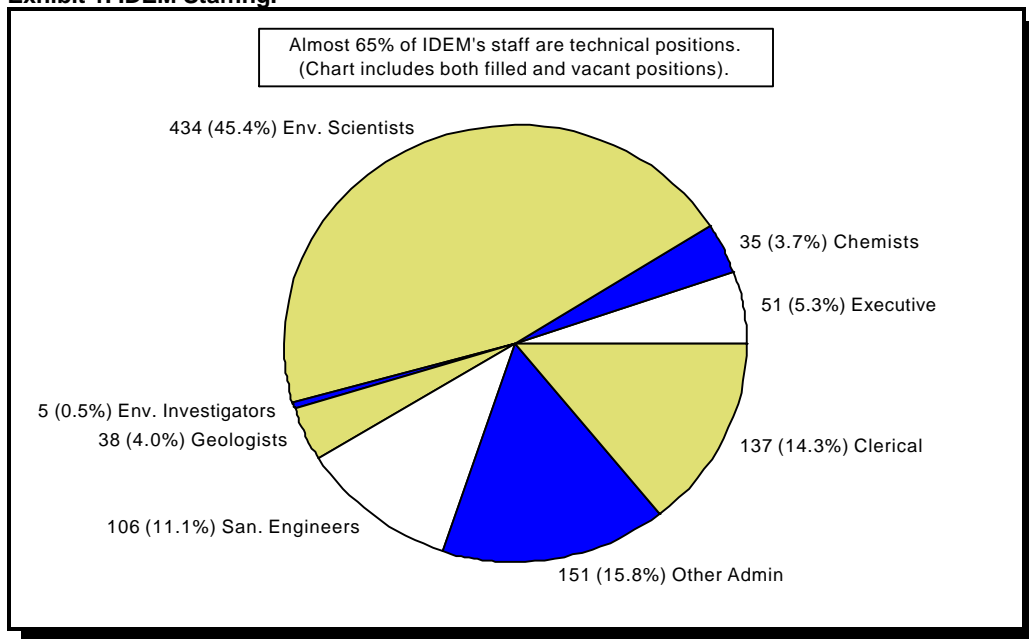
Department of Environmental Management

The Department of Environmental Management (IDEM) issues permits for facilities that emit, discharge, or dispose federal or state regulated pollutants into the state's air, waterways, or land. Concise and timely permits are important because they define the parameters within which a company may legally operate in Indiana.

Staffing

IDEM has a commissioner appointed by the Governor. The commissioner is supported by two deputy commissioners and 6 assistant commissioners. As of March 1994, IDEM had a total of 957 authorized positions. Exhibit 1 diagrams the total number of positions by category.

Exhibit 1. IDEM Staffing.



The majority, or 65%, are technical staff positions, such as environmental scientist/environmental managers, sanitary engineers, geologists, environmental investigators, and chemists. The remaining positions are clerical, support staff, and executive staff.

Vacancies

As of March 1994, IDEM had a 32% vacancy rate or 303 vacant positions. The majority of the vacancies were technical staff positions. Exhibit 2 diagrams the number of filled versus vacant positions by category. Although technical positions represent the highest number of vacancies, 155, clerical and support positions had the highest percent of vacancies. Clerical had a 43% rate, and support had a 35% vacancy rate. Thirty-four percent of executive positions were not filled.

IDEM attributes the large number of vacant positions to the 1990 hiring freeze placed on all state agencies and the uncertain future of the Department's permit programs.

Technical Staff Turnover

Since 1986, 406 individuals were placed in technical positions. IDEM reports that 149 of these individuals resigned between 1986 and 1991. IDEM averaged a 50% turnover rate for the five-year period. Based on a 1991 salary survey conducted by IDEM, low salaries were the primary reason cited by individuals who left the Department. Limited career ladder and

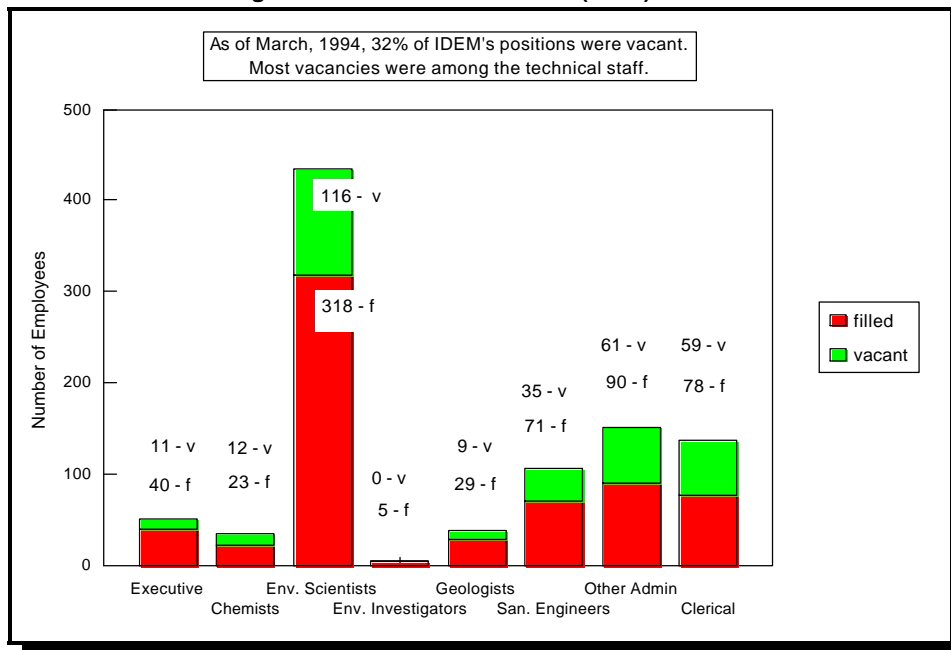
advancement potential were also frequently mentioned. The survey showed that a mid-level staff member, such as an Environmental Scientist 3, would receive a 15%-53% higher salary for the same job in the private sector. A high-level technical employee, such as a Geologist 2, who went from IDEM into the private sector would receive a salary increase of 51%-70% (\$40,000 compared to \$26,000).

Due to low salaries, IDEM typically hires and trains individuals with no environmental experience. The Department estimates the cost of training to be \$14,500 per person. A newly trained technical employee usually works at IDEM for 12-18 months and then leaves to take a job in the private sector. IDEM reports the personnel flow between IDEM and private industry is virtually one way. Although industry routinely acquires experienced environmental employees from IDEM, only rarely does IDEM acquire experienced staff from the private sector.

Total Quality Management

IDEM implemented Total Quality Management (TQM) to enable staff to continue progress and strive for the highest level of efficiency. TQM originated in the private sector. It has two focuses: 1) employee empowerment; and 2) improvement of the work process. The first focus provides that everyone in a work unit is treated equally. The second focus assumes that an agency or unit will analyze what is actually being done in order to improve the work process. The goal of TQM is to increase employee participation and create a more efficient work process.

Exhibit 2. IDEM Staffing: Vacant vs. Filled Positions (FY94)



Funding

Total Funding

IDEM receives funding from the State General Fund, dedicated funds, and federal funds. Exhibit 3 shows the total appropriations from federal and state sources for FY89 through FY95. Exhibit 4 describes the appropriations, expenditures, and reversions for IDEM for FY89 through FY93, as well as appropriations for FY94 and FY95. Although the sources of funding have remained the same, the proportion from each of the three sources has varied. In 1989, State General funds contributed 54% of the total appropriation, while dedicated funds contributed 16% and federal funds contributed 30%. By FY93, the proportions had shifted to 43% from the General Fund, 36% from dedicated funds, and 21% from federal funds. The FY94 and FY95 appropriations continue this trend: by FY95 general funds will contribute 34%, dedicated funds 48%, and federal funds 18% of IDEM's total appropriations.

Exhibit 4 also illustrates a significant increase in IDEM's total appropriations from FY89 to FY93. This trend will continue through FY95. Appropriations more than doubled in nominal terms from \$39.2 million in 1989 to \$80.7 million in 1995. The increase in appropriations reflects the increase in programs required by the state or federal government. IDEM reports that 57 new or expanded programs have been required since 1989.

Exhibit 3. IDEM Appropriations: FY89 - FY95.

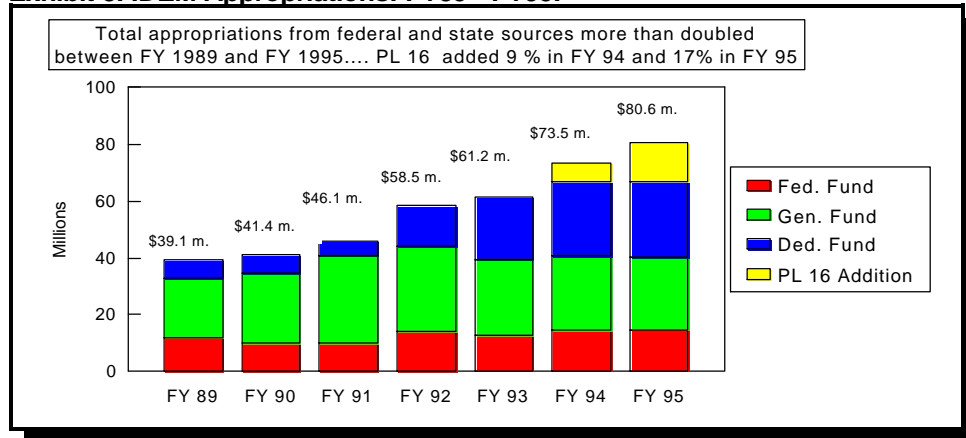


Exhibit 4. IDEM Appropriations, Expenditures, and Reversions: FY89-FY95.

		General Funds	Dedicated Funds ⁽¹⁾	Federal Funds	Total	GF %	DF %	Fed %
FY89	Appropriation ⁽²⁾	\$21,007,535	\$6,428,677	\$11,719,879	\$39,156,091	54%	16%	30%
	Expenditure	\$19,143,368	\$3,500,328	\$11,719,879	\$34,363,575	56%	10%	34%
	Reversions/Unspent	\$1,864,167	\$2,928,349		\$4,792,516	39%	61%	0%
FY90	Appropriation ⁽²⁾	\$24,729,864	\$6,735,726	\$9,980,584	\$41,446,174	60%	16%	24%
	Expenditure	\$22,930,993	\$3,476,693	\$9,980,584	\$36,388,270	63%	10%	27%
	Reversions/Unspent	\$1,798,871	\$3,259,033		\$5,057,904	36%	64%	0%
FY91	Appropriation ⁽²⁾	\$31,016,421	\$5,450,047	\$9,674,996	\$46,141,464	67%	12%	21%
	Expenditure	\$24,665,587	\$3,783,162	\$9,674,996	\$38,123,745	65%	10%	25%
	Reversions/Unspent ⁽³⁾	\$2,550,834	\$1,666,885		\$4,217,719	60%	40%	0%
FY92	Appropriation ⁽²⁾	\$30,022,906	\$14,537,770	\$13,914,939	\$58,475,615	51%	25%	24%
	Expenditure	\$25,176,114	\$7,340,040	\$13,914,939	\$46,431,093	54%	16%	30%
	Reversions/Unspent ⁽³⁾	\$2,239,313	\$7,197,730		\$9,437,043	24%	76%	0%
FY93	Appropriation ⁽²⁾	\$26,494,720	\$21,805,967	\$12,868,874	\$61,169,561	43%	36%	21%
	Expenditure	\$24,862,212	\$10,196,974	\$12,868,874	\$47,928,060	52%	21%	27%
	Reversions/Unspent	\$1,632,508	\$11,608,993		\$13,241,501	12%	88%	0%
FY94	Appropriation ⁽⁴⁾	\$27,510,586	\$31,159,331	\$14,792,939	\$73,462,856	37%	42%	20%
FY95	Appropriation ⁽⁴⁾	\$27,605,798	\$38,372,781	\$14,675,530	\$80,654,109	34%	48%	18%

(1) Dedicated funds that are unspent remain in the dedicated fund.

(2) Appropriations include transfers and augmentations throughout the year.

(3) Reversions do not equal the difference between appropriations and expenditures due to nonreverting general fund appropriations.

(4) Reflects appropriations in P.L. 16-1994.

Source: State Budget Agency, document dated December 6, 1993.

State General Fund

Exhibit 4 shows that State General Fund appropriations and expenditures increased steadily from FY89 until FY91 and then decreased. Although State General Fund appropriations were higher in 1993 than they were in 1989, in proportion to the total budget, the general fund's share has decreased. In FY91 the State General Fund contributed 67% of IDEM's total appropriations. By 1995, this figure will drop to 34%.

State General Fund Reversions

State General Fund expenditures in Exhibit 4 do not equal appropriations due to reversions to the State General Fund at the end of a fiscal year. Most state agencies reverted funds to the State General Fund in FY91 to FY93 to compensate for overall state revenue shortfalls due to the recession. In September of 1990, IDEM implemented a spending reduction plan and reverted approximately \$2.5 million in FY91, \$2.2 million in FY92, and \$1.6 million in FY93 to the State General Fund.

Dedicated Funds

Exhibit 4 demonstrates that appropriations from the State General Fund and federal funds did not change significantly from FY89 to FY93, although there was some fluctuation in both sources of revenue during this time. Dedicated fund appropriations, however, increased from \$5.4 million in FY91 to \$21.8 million in FY93, a 304% increase in nominal terms. The proportional share of dedicated fund appropriations increased from 16% of the total budget in FY89 to 36% in FY93.

Several factors may account for the significant increases in dedicated fund appropriations. First, permit fees, the primary component of dedicated funds, increased for all programs in 1990. Second, several new programs were developed while others expanded. Additionally, there was widespread acceptance by both federal and state environmental authorities that individuals and firms that directly receive the services of environmental agencies should pay the largest share of the costs of providing these services. Both the federal 1990 Clean Air Act Amendments and the current reauthorization debate on the Clean Water Act, which mandate that permit programs be completely funded by permit fees, demonstrate this funding philosophy.

Unspent Dedicated Funds

Expenditures from dedicated funds have increased more slowly than appropriations. Exhibit 4 reveals that unspent dedicated funds increased from approximately \$7 million in FY92 to \$11.6 million in FY93. During both years, accounts containing funds for local recycling activities account for over one-third of the unspent funds.

Federal Funds

The federal funds share of total IDEM appropriations has declined from 30% in 1989 to 21% in FY93. This trend is expected to continue through 1995 when federal funds will comprise 18% of total appropriations.

P.L. 16-1994

In 1993, the total appropriations to IDEM were \$61.2 million. P.L. 16-1994 increased the Department's total appropriations to \$73.5 million for FY94, a \$12 million or 20% increase. For FY95, the new law increased IDEM's total appropriations to \$80.6 million, an increase of approximately \$7 million or 10% increase. Both State General Fund and dedicated fund appropriations increased, although dedicated funds provided the majority of the increased appropriation. The source of the increased dedicated fund appropriation was new permit fees.

Chapter 2: Air Permits

Permit Programs

The Office of Air Management (OAM) within the Department of Environmental Management (IDEM) administers the state's air permit programs. Air construction permits are issued for new facilities and operating permits are issued to existing facilities.

Air Operation Permits

The Air Operation Permit Program authorizes the first-time operation of newly constructed facilities through a streamlined administrative process that essentially turns a construction permit into an operation permit.

Air Construction Permits

The primary permit program is the Air Construction Permit Program. IDEM requires air construction permits for the construction of facilities that produce emissions of air pollutants subject to state regulation. IDEM does not require a permit unless the potential level of emissions is above certain regulatory thresholds. If the potential emissions fall below the thresholds, the project may need to be registered or it may be exempt from regulation. The level of potential emissions determines the level of construction approval required (i.e. permit, registration, or exemption).

If a project or modification emits more than federally specified amounts, both state and federal requirements must be met before construction can begin and a federal Prevention of Significant Deterioration (PSD) permit issued. PSD permits are required for major sources of pollutants or modifications of major sources. PSD requirements prevent uncontrolled industrial expansion from causing significant deterioration of the air in areas that already meet air quality standards (i.e. "attainment areas"). The PSD approval process can be complex, costly, and time-consuming.

Permit Process

A person seeking an air construction permit must prepare a detailed application, pay a \$100 filing fee, respond to IDEM's request for additional information, prepare emission calculations, pay the appropriate permit fee, and receive final permit determination. If a permit is denied or if the conditions to the permit are unacceptable, the applicant may appeal. If a permit is issued, construction may start immediately. Persons who object to the issuance of the permit may file for review within 15 days and cause a stay of the effectiveness of the permit. Recent changes to IDEM's permit review process have reduced the process from 24 to 10 steps.

Permit Fees

Air construction permit fees are set by rules located in 326 IAC 2-1-7.1. The amount of the fee depends upon the type of permit requested (registration, construction, PSD), the amount and kind of pollutant to be emitted, and the date IDEM received the original application. (Fees are higher on applications received after September 1, 1990).

The Air Pollution Control Board increased air construction permit fees on March 10, 1994. Currently, the air construction permit fee for a non-major source is \$3,000. Construction permit fees for the same facilities will increase to \$3,500 when the new rules become effective. Major source fees will increase substantially. Other miscellaneous fees may also be applicable.

Clean Air Act Amendments of 1990

During the next two years, new state clean air standards resulting from the federal Clean Air Act Amendments of 1990 will significantly change the current air construction permit program. Approximately 650 major sources of air pollutants will need to apply for a Title V Operation Permit between July of 1995 and June of 1996. Another 1,000 minor sources will need to apply for a lower level of operation permit called a Federally Enforceable State Operating Permit prior to June of 1996. Several hundred other permitted facilities will remain in the current permit program.

Permitting History

Exhibit 5 indicates that permits pending at the end of the year increased substantially in 1989 and 1990. Before 1989 and after 1990, permit personnel appeared to have kept up with permit applications. Total permits issued were stable at approximately 190 in 1988-1990, while permit applications received increased 74%. Officials at the Department noted that the increase in applications in 1990 and during the following years may be the result of increased enforcement activities. Many companies discovered they had constructed without ever receiving a construction permit and were operating without a legal operating permit. With this discovery, many companies may have applied for permits after the fact. Another reason for the increase in applications during 1988-1990 may have been that companies were modernizing their facilities for new business opportunities.

Exhibit 5. Air Permitting Activity: CY86-CY94.

Year	Total Permit Applications Received	Total Permit Decisions	Permits Pending *	Annual % Change Pending	Pending as % of Permits **
CY86	132	105	27		20.5%
CY87	173	164	36	33.3%	18.0%
CY88	200	192	44	22.2%	18.6%
CY89	254	185	115	161.4%	38.6%
CY90	347	195	250	117.4%	54.1%
CY91	364	300	249	-0.4%	40.6%
CY92	434	376	275	10.4%	40.3%
CY93	532	434	365	32.7%	45.2%
*** CY94	171	175	347	--	--

* Estimates are adjusted to allow for applications withdrawn or combined with other applications from same facility.
 ** Pending as % of possible permit decisions.
 *** Data is for 1st quarter only.

Exhibit 6 presents air permitting activity from 1986 through March 1994. Again in 1991, permits issued increased substantially. The share of construction permits issued that take more time to process

increased in 1988 and 1993. The construction share as a percent of decisions was relatively stable from 1988 through 1992, which may imply that an increase in complex permit applications did not cause the increase in the number of permits pending.

Exhibit 6. Air Permitting Activity by Type: CY86-CY94.

Year	Exemption	Registration	Construction	PSD	Exemption as % of Decisions	Registration as % of Decisions	Construction as % of Decisions	PSD as % of Decisions
CY86	29	53	21	2	27.6%	50.5%	20.0%	1.9%
CY87	54	77	29	4	32.9%	47.0%	17.7%	2.4%
CY88	40	80	68	4	20.8%	41.7%	35.4%	2.1%
CY89	34	83	63	5	18.4%	44.9%	34.1%	2.7%
CY90	28	91	74	2	14.4%	46.7%	37.9%	1.0%
CY91	49	131	118	2	16.3%	43.7%	39.3%	0.7%
CY92	68	173	132	3	18.1%	46.0%	35.1%	0.8%
CY93	62	170	196	6	14.3%	39.2%	45.2%	1.4%
* CY94	27	64	70	1	15.4%	36.6%	40.0%	0.6%

* Data is for 1st quarter only.

Backlogged Permit Applications

The air permit rules that deal with accountability became effective October 1, 1993. The Office of Air Management created a new system that tracks applications according to the time deadlines established in the accountability rules. However, since pending permit applications were not subject to the accountability rule until October 1, 1993, and the Department's information system was not based on a time schedule, it is difficult to compile precise information on backlogged permits. According to the new rules, an application is backlogged if a registration permit has not been processed within 60 days, a construction permit within 120 days (not counting days waiting for additional information from an applicant), or a federal permit within 270 days.

As of April 1, 1994, OAM had 347 applications pending. Of these pending applications, 89 would be considered backlogged. Another 59 pending applications are likely to be late by the time they are issued. Most of the pending and backlogged applications will require air construction permits. Many pending permits (25%) are for previously constructed facilities that are operating without a permit.

OAM's goal is to eliminate backlogged applications by September 1994 and issue pending and future construction permits in less than four months, registrations in less than two months, and complete federal permits for PSD within six to nine months. Temporary staff have been hired to fill vacant positions until permanent staff can be recruited and trained.

Measures to Improve Operating Efficiency of the Permit Programs

In addition to increasing funding and the number of staff (especially technical), OAM has taken other steps to eliminate the historic backlog of applications and process applications in a more timely manner. Steps taken include the following:

- ! Remove duplicative review processes.
- ! Transfer certain responsibilities from supervisors to staff.

- ! Issue interim construction permits following a streamlined agency and public review.
- ! Amend the definition of construction to allow limited construction-related activities or emergency replacements prior to receiving permit.
- ! Exempt most non-construction operational changes from the need for pre-operational approval (effective 7/94).
- ! Include permit-by-rule for most grain elevators and small surface coaters (effective 7/94).
- ! Use contractors to review permits.
- ! Provide detailed current written permit review procedures.
- ! Centralize on-the-job training for consistency.
- ! Investigate electronic applications and automated permit processing systems.
- ! Improve information available to the public on the permit process, pending applications and permit issues.
- ! Eliminate the requirement for approval prior to installing most air pollution controls (effective 7/94).

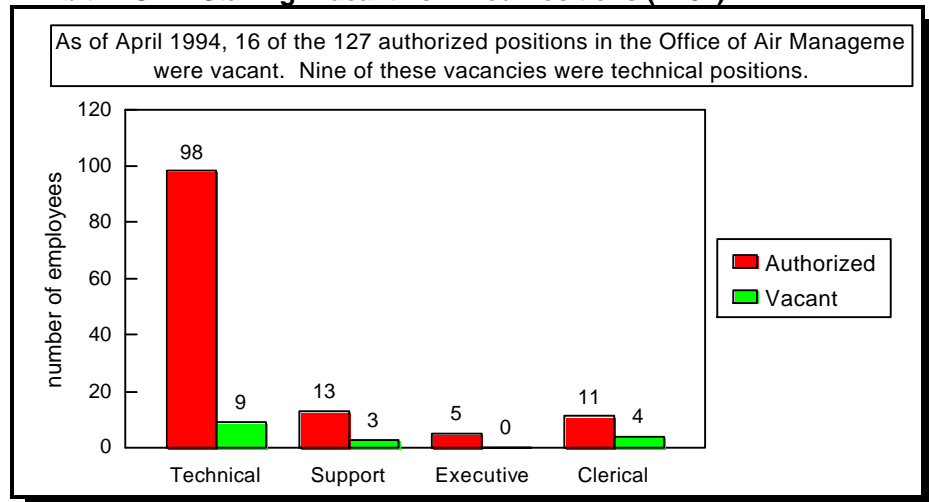
Office of Air Management Staffing and Funding

OAM administers the state's air permit programs. The Office is headed by an assistant commissioner with five branch chiefs: the Air Permits Branch; the Air Compliance Branch; the Air Monitoring Branch; the Air Enforcement Branch; and the Air Programs Branch. Personnel in both air construction and air operating permit programs spend some time in oversight of those portions of the programs that are delegated to local government air pollution control agencies.

Staffing

As of April 1994, OAM had 127 approved positions. Technical staff positions, such as engineers, environmental scientists and chemists, numbered 98 or 77% of the total positions. The remaining positions were clerical and support or executive staff. Sixteen positions, or nearly 13% of the total 127 positions, were vacant. Of the 16 vacant positions, 9 of the vacancies were technical positions. Exhibit 7 illustrates the Office's current staffing and vacancies.

Exhibit 7. OAM Staffing: Vacant vs. Filled Positions (FY94).



Additional Staffing for Clean Air Act Programs

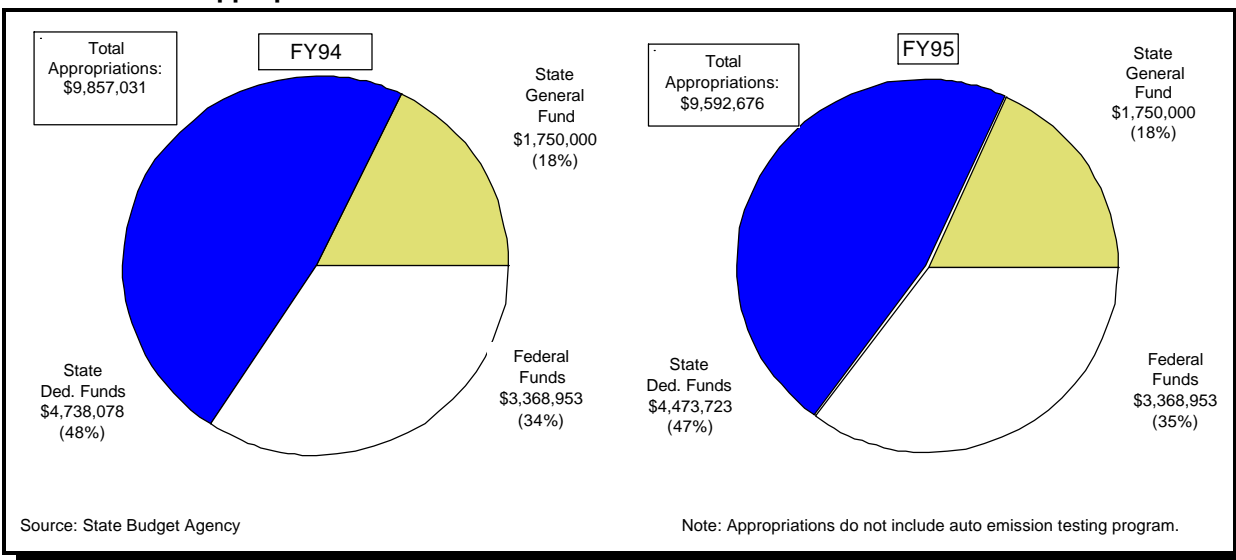
The Office has begun the first phase of acquiring 75 additional staff members to lay the groundwork for the new Title V Air Permit Program. Sixty-one of the positions, or 81%, are for environmental engineers,

environmental scientists/managers, or chemists. The additional positions include compliance, enforcement, and data management responsibilities. These positions will be funded by increased permit fees resulting from the Title V Operating Program as mandated by the 1990 Clean Air Act Amendments.

Funding

OAM receives money from the State General Fund, dedicated funds (permit fees), and federal funds. Total appropriations equalled \$9.9 million in FY94 and \$9.6 million in FY95. Exhibit 8 illustrates the components of these appropriations.

Exhibit 8. OAM Appropriations: FY94-FY95.



Dedicated Funds

Dedicated funds represent close to one-half of OAM's operating budget. Revenue from permit fees in 1994 and 1995 will significantly increase when the Clean Air Act Title V Permit Program begins.

Air Title V Permit Program

Not reflected in Exhibit 8 is the new Title V Permit Program mandated by the Clean Air Act Amendments of 1990. The permit fee schedule in the Title V program is expected to generate \$5 million in revenue for 1994 and \$8 million in 1995. Beginning in 1996, annual revenue from operation permits is estimated to be approximately \$12-\$15 million. This estimate is based on 1,500-2,000 facilities expected to apply for permits under the Title V program.

Chapter 3: Water Permits

Permit Programs

The Office of Water Management (OWM) within IDEM issues three types of surface water-related permits: 1) National Pollutant Discharge Elimination System (NPDES) permits; 2) land application permits; and 3) construction permits. NPDES is the primary permit administered by OWM. The Environmental Protection Agency (EPA) delegated the responsibilities of this program to OWM. State NPDES regulations (327 IAC 5) require facilities discharging wastewater contaminants into Indiana's surface waters to discharge under the authority of an NPDES permit. OWM also issues land application permits to regulate the disposal of sludge on the land surface and construction permits for the construction of wastewater facilities. Land application and construction permits are a minor portion of OWM's permit responsibilities.

The Office establishes, reviews, and enforces approximately 1,700 industrial and municipal NPDES permits. The six types of NPDES permits are 1) industrial major or minor; 2) municipal major or minor; 3) semi-public; 4) state facility; 5) federal facility; and 6) water supply systems. These permit applications can be for a new, modification, or renewal permit. Forty-one percent of the permitted facilities are industrial, and 22% are municipal. The remaining 37% of permitted facilities include semi-public, state, and federal facilities, as well as water supply systems. The NPDES permit process includes, but is not limited to, site investigations, stream/river surveys, biological and risk assessments, and engineering services. The complexity of issuing a permit depends on the type of facility, the number of variances, and site specific limitations.

Permit History

From January 1, 1989 to March 27, 1994, OWM received 1,564 NPDES permit applications. The Office received an average of 297 applications per year from 1989 through 1993, but the actual number varied widely from year to year. CY89 had the largest number of NPDES permit applications with 359, and CY91 had the smallest number with 224. Exhibit 9 illustrates the number of NPDES permit applications received and the number of permit decisions from January 1989 to March 1994.

Exhibit 9. Water Permitting Activity: CY89- CY94.

Year	Total Permit Applications Received	Total Permit Decisions	Permits Pending *	Annual % Change Pending	Pending as % of Permits **
CY88			329		
CY89	359	221	467	41.9%	67.9%
CY90	338	248	557	19.3%	69.2%
CY91	224	93	688	23.5%	88.1%
CY92	229	112	805	17.0%	87.8%
CY93	335	185	955	18.6%	83.8%
*** CY94	79	7	1027	7.5%	99.3%

* Estimates are adjusted to allow for applications withdrawn or combined with other applications from same facility.
** Pending as % of possible permit decisions.
*** Data is for 1st quarter only.

OWM averaged 172 NPDES permit decisions annually from January 1989 to December 1993. NPDES permit decisions decreased by 62% from CY90 to CY91 (248 versus 93). A 40% drop in staffing levels during this time may account for this decrease. The number of decisions increased from 112 in CY92 to 185 in CY93. In 1993, OWM hired temporary staff to process and issue NPDES permits, which accounts for the increase from CY92 to CY93.

Characteristics of Pending Applications

NPDES permits are issued for a five-year period. The Office places a higher priority on new and modification permit applications than on renewal applications. Consequently, the majority of OWM's current pending permit applications are renewals. Permit holders may continue to operate under current permits until OWM can process renewals. Therefore, a pending renewal application has little, if any, impact on the applicant.

OWM reports no pending land application or construction permits.

Reasons for Pending Permit Applications

OWM cites the following reasons for pending permits: 1) inadequate funding; 2) high vacancy rate in technical positions; and 3) inexperience of staff. Additionally, requests for variances from water quality standards and site-specific water quality standards have increased. The increase in requests adds to the existing accumulation of permit applications. A minor portion of pending permits is due to delays in processing modifications pending the approval of new rules for stormwater runoff.

According to OWM staff, the act of writing and issuing permits to minor facilities is relatively straightforward. However, due to the large number of pending renewals, considerable time and effort will be necessary to process and issue the permits.

Eliminating Pending Permit Applications

Current Efforts

To address the issuance of pending renewal permit applications, OWM divided the state into five geographical districts to review and issue renewal permits. The Office began this process in 1993 and will review one district each year.

OWM reports that if a renewal permit application is received for a district that has been completed, the application will be held unless the application indicates a possible violation of water quality standards. In these instances, the renewal application receives a higher priority than a renewal that does not indicate a violation of water quality standards.

Staffing and Management Improvements

The Office plans to reduce the number of pending permit applications by hiring and training additional permanent staff, adopting rules, and increasing efficiency. The increased funding provided by P.L. 16-1994 will allow OWM to hire additional full-time technical staff and provide training. The agency is considering using private consultants to review basic permits. Also, OWM has implemented Total Quality Management (TQM), a new cooperative approach to managing the permitting programs.

Changes in Rules

Through rule-making, OWM has implemented a new NPDES General Permit Program for stormwater runoff associated with industrial activity. OWM anticipates 5,000 to 10,000 businesses will need stormwater runoff permits. In an attempt to prevent a large accumulation of new applications, IDEM adopted compliance requirements that do not require extensive field work or laboratory analysis.

In addition to the above rule changes, the Water Pollution Control Board approved final adoption of six other NPDES General Permit rules (coal mining, coal processing and/or reclamation activities; noncontact cooling water; petroleum products terminals; groundwater petroleum remediation systems; hydrostatic testing of commercial pipelines; and sand, gravel, dimension stone or crushed stone operations). OWM believes that changing permit requirements will reduce pending permits and still maintain water quality.

P.L. 16-1994

P.L. 16-1994 establishes time frames within which OWM is to issue major or minor new NPDES permits, land application permits, and construction permits. A new permit application is backlogged if it is not issued or denied within the following time frames:

- ! NPDES permits - 270 days for a major new permit and 180 days for a minor new permit.
- ! Land application permits - 180 days.
- ! Construction permits - 90 days.

The law does not specify deadlines for modifications and renewals of NPDES permits. If the time frames of P.L. 16-1994 were applied at this point in time, OWM would not have a backlog for any type of permit.

If a major or minor new NPDES permit is not denied or issued within the specified time frames, the applicant has the following options:

- ! Request and receive a refund of the permit application fee.
- ! Submit to OWM a draft permit and the required supporting technical justification for the permit.
- ! Require OWM to use the permit application fee and any additional money needed to hire an outside consultant.

Office of Water Management Staffing and Operations

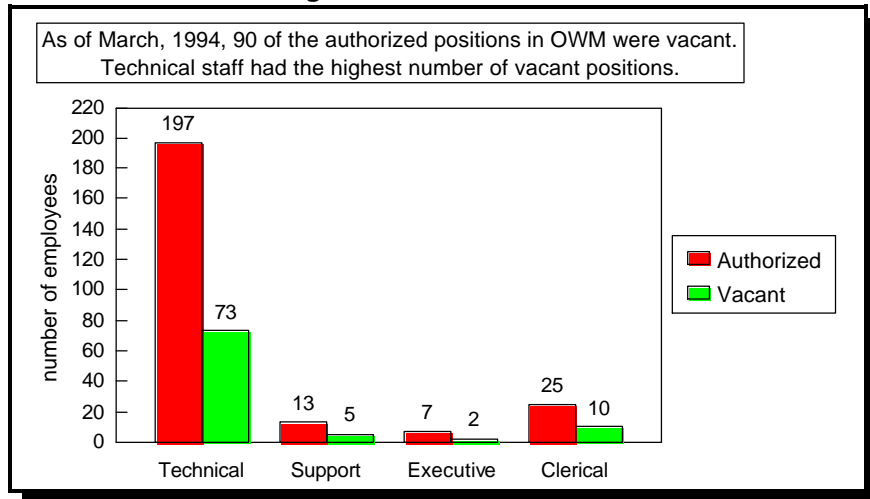
Staffing

As of March 1994, OWM had 242 authorized positions. The majority, or 81%, were technical staff, such as chemists, environmental scientists, environmental managers, and environmental engineers. The remaining staff were clerical, support, and executive. Authorized and vacant positions are depicted in Exhibit 10.

As of March 1994, OWM had a vacancy rate of 37% (90 positions). Technical staff had the highest number of vacant positions at 73, or 37%. There were 10 clerical vacancies or 40% of the clerical staff. Support staff had five vacancies out of 13 positions, or 38%. Executive staff had a 29% vacancy rate with two positions unfilled.

The Office has not made any final decisions regarding the allocation of new positions to be funded from new permit fees and State General Fund appropriations provided in P.L. 16-1994.

Exhibit 10. OWM Staffing: FY94.

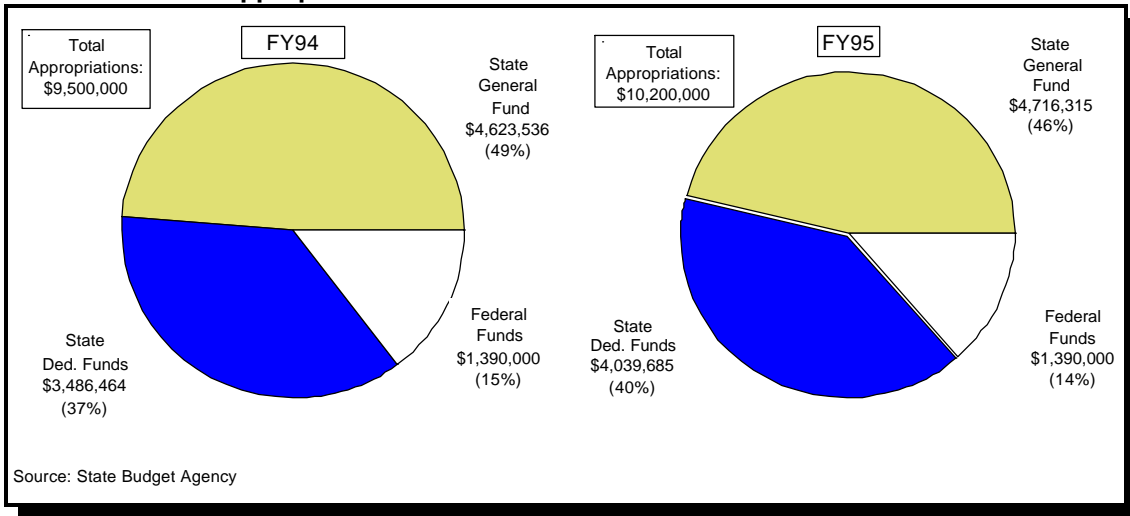


Funding

Total Funding

OWM's total appropriations are approximately \$9.5 million in FY94 and \$10.2 million in FY95. Exhibit 11 diagrams the breakdown of the total appropriations.

Exhibit 11. OWM Appropriations: FY94 - FY95.



State General Fund

P.L. 16-1994 appropriates \$4.6 million in FY94 and \$4.7 million in FY95 from the State General Fund. The new appropriations replace appropriations approved in P.L. 277-1993. The State General Fund is approximately 49% of the FY94 total appropriation and 46% of the FY95 total appropriation.

Dedicated Funds

P.L. 16-1994 established NPDES permit fees which are deposited in the Environmental Management Permit Operation Fund. The fee charged is dependent on the type of permit and the actual average daily discharge. FY94 permit fees range from \$100 to \$30,000 per year. FY95 permit fees range from \$100 to \$35,800 per year.

Dedicated funds comprise approximately 37% of the Office's budget in FY94 and 40% in FY95. Dedicated fund appropriations increased 20% between FY94 and FY95, from \$3.5 million to \$4.0 million.

Federal Funds

Federal funds account for \$1.39 million, or approximately 14%, of the total appropriation in both FY94 and FY95.

Chapter 4: Solid and Hazardous Waste Permits

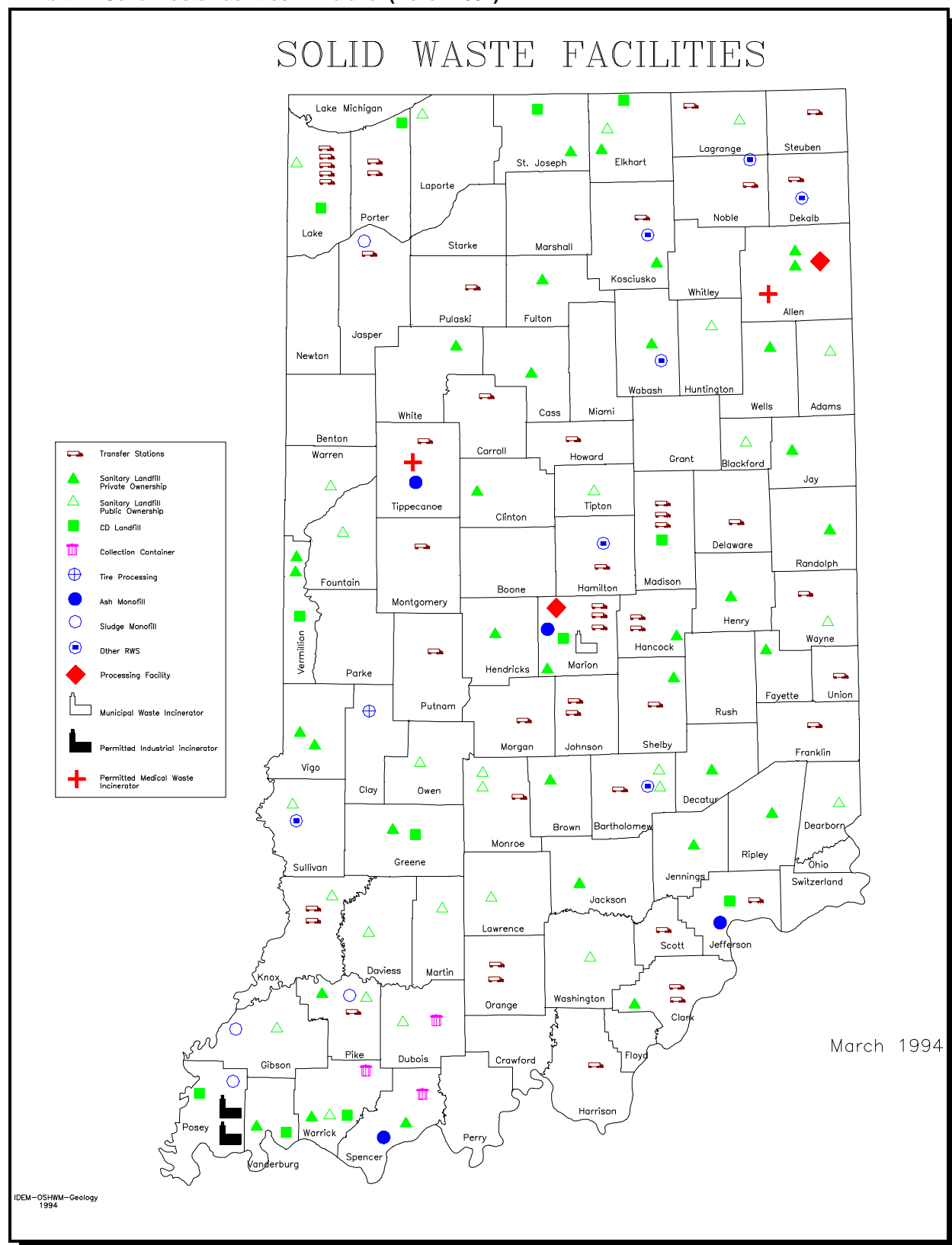
During the past five years, over 300 pending permits for solid and hazardous waste facilities have accumulated. The majority of these pending permits are for solid waste facilities. During this time the Office of Solid and Hazardous Waste Management (OSHWM), the office within IDEM that issues solid and hazardous waste permits, has experienced staffing vacancies and funding uncertainties. P.L. 16-1994 seeks to address both the large number of pending permits and the staffing and funding deficiencies.

Solid Waste Permit Program

Solid waste programs are primarily state programs mandated by state laws. An operator or potential operator of a solid waste disposal site may need to apply for several different permits. A permit is effective for a maximum of five years. The most common permits are construction/operating, major modifications, minor modifications, and renewals. A construction/operating permit is a permit for building and operating a new facility. A major modification permit allows the operator to expand the size of an existing disposal site. A minor modification permit allows the operator to change various aspects of the site. A renewal allows the operator to extend an existing permit. If rules have changed significantly, a renewal may also require proof of compliance with new rules. In addition to these permits, operators must file Closure and Post Closure plans. These plans are detailed estimates of the costs associated with maintenance of the site after closure.

Currently, approximately 140 permitted solid waste facilities operate in Indiana. Privately operated transfer stations and landfills account for approximately 49% of all permitted facilities. Municipal landfills and transfer stations are the next largest group, comprising about 26% of permitted facilities. A variety of other facilities hold the remainder of the permits, including incinerators, medical waste sites, restricted waste sites, and recycling sites. Exhibit 12 is a map of permitted solid waste disposal sites.

Exhibit 12. Solid Waste Facilities in Indiana (March 1994).



Permitting History

Although there are only 140 permitted sites, OSHWM received 522 applications for permits or permit-related approvals for solid waste between January 1, 1989, and March 7, 1994. Due to new rules promulgated during 1989, the greatest number of applications (209) was received in that year. Recent application rates are much lower: the Office received 43 applications in 1992 and 45 in 1993. However, the Office has already received 15 applications in the first nine weeks of 1994. Uncertainty surrounding the permitting program may have discouraged potential applicants from seeking permits in 1992 and 1993. Exhibits 13 and 14 illustrate solid waste permitting activity from 1989 through March 7, 1994.

Exhibit 13. Solid Waste Permitting Activity: CY89 - CY94.

Year	Total Permit Applications Received	Total Permit Decisions	Permits Pending*	Annual % Change Pending	Pending as % of Permits **	
CY88			83			
CY89	209	64	217	161.4%	74.3%	*
CY90	139	37	304	40.1%	85.4%	
CY91	71	32	334	9.9%	89.1%	
CY92	43	46	333	-0.3%	88.3%	
CY93	45	83	292	-12.3%	77.2%	
***CY94	<u>15</u>	<u>10</u>	305	4.5%	99.3%	
Total	522	272				
* Estimates are adjusted to allow for applications withdrawn or combined with other applications from same facility or data entry errors.						
** Pending as a % of possible permit decisions.						
*** Reflects activity through March 7, 1994.						

The type of application received most frequently was a renewal. Renewals accounted for 145 of the 522 permit applications. The next largest categories were Closure and Post Closure Plans, with 117, followed by minor modifications with 113. It is likely that renewals, Closure and Post Closure Plans, and minor modifications will continue to constitute a large proportion of the applications.

Exhibit 14. Solid Waste Permitting Applications and Decisions: CY89 - CY94 .

Type of Permit							
	Const'n/ Year Operating	Major Modification	Minor Modification	Renewal	Closure/ Post-Closure	Other Permits	Total
<u>Applications</u>							
CY89	29	9	15	56	93	7	209
CY90	12	10	26	63	14	14	139
CY91	21	4	19	16	5	6	71
CY92	9	7	21	2	2	2	43
CY93	5	6	26	3	3	2	45
*CY94	0	2	6	5	0	2	15
Total	76	38	113	145	117	33	522
(%)	15%	7%	22%	28%	22%	6%	100%
<u>Decisions</u>							
CY89	11	10	5	30	1	7	64
CY90	6	5	11	12	1	2	37
CY91	7	0	14	8	0	3	32
CY92	12	5	18	9	0	2	46
CY93	15	9	22	26	11	0	83
*CY94	6	0	3	0	1	0	10
Total	57	29	73	85	14	14	272
(%)	21%	11%	27%	31%	5%	5%	100%

* Reflects activity through March 7, 1994.

From January 1, 1989, to March 7, 1994, OSHWM issued 272 decisions, including decisions on applications received prior to January 1, 1989. The number of decisions is well below the 522 applications received during this period. The composition of permit types receiving a decision differs from the composition of applications. For example, while Closure and Post Closure Plans constituted 22% of all applications, they made up only 5% of the decisions. Construction/operating and major modification permits accounted for 21% of the applications, but 31% of the decisions. Renewals and minor modifications constituted the largest number of decisions.

Priorities

The primary reason for the differences in the composition of decisions and applications is OSHWM's method of ranking applications. The Office does not complete permit applications on a first come, first served basis. Instead, the Office places a priority on maintaining waste disposal capabilities for Indiana's geographic areas. A landfill requesting a major modification in an area that has few other disposal options would have priority over one in an area with adequate disposal capacity. The Office also ranks applications based on the potential effect on the facility and the environment. A facility that could continue to operate safely without a permit decision would receive a lower priority than a facility that could not operate safely. Most renewal applications are less urgent than modification or construction permit

applications. If a facility applies for a renewal in a timely manner, it may continue to operate without a permit decision. If this facility has been operating without violations, OSHWM places a lower priority on its renewal application. Closure and Post Closure Plans are also an example of a less urgent permit.

Pending Solid Waste Permits

Because OSHWM has received applications more quickly than it has been able to issue decisions, a large number of pending solid waste applications have accumulated over the past 5 years. As of March 7, 1994, 305 applications were pending. Thirty of these applications were for construction/operating permits, 21 were for major modifications, 44 were for minor modifications, and 85 were for renewals. The remaining pending permits were primarily for Closure and Post Closure Plans. OSHWM cannot identify any specific reason for delays common to all 305 applications.

Backlogged Solid Waste Permits

Beginning in July 1995, P.L. 16-1994 requires OSHWM to issue permit decisions within certain time frames. Permit applications that do not receive timely decisions will be considered backlogged. The time frames for each permit are as follows:

- ! 365 days for a new permit or major modification of a landfill or incinerator,
- ! 180 days for a new solid waste processing or recycling facility, and
- ! 90 days for a minor modification of a landfill or incinerator.

The law does not specify any deadlines for renewals.

OSHWM has provided an estimate of the number and type of permits that would be backlogged if the time frames of P.L. 16-1994 were effective immediately. The hypothetical backlog consists of 17 construction/operating permits, 12 major modification permits, four construction/operating permits for new processing facilities, and 38 minor modification permits. However, it should be noted that these estimates are not a prediction of the number of permits that will be backlogged when P.L. 16-1994 becomes effective in July 1995.

Hazardous Waste Permit Program

Hazardous waste permit programs are federally delegated programs. The federal Resource Conservation and Recovery Act influences the state's administration of hazardous waste disposal. When applicable, state rules and regulations must be at least as stringent as federal rules. The state has virtually no flexibility in the operation of these programs. Five types of hazardous waste permits exist in Indiana. For new facilities, potential operators must obtain an operating permit. Class 1, Class 2, and Class 3 modification permits allow an operator to modify the conditions of an existing permit. Class 1 modifications are the least complex modification, while Class 3 are the most complex. An operator may also apply for a renewal to an existing permit. Renewal applications for existing permits require extensive information. In addition to permit applications, operators also file Closure and Post Closure Plans. The hazardous waste Closure and Post Closure Plan is different from the solid waste plan. If an operator can demonstrate that a Closure Plan will de-contaminate the site (referred to as a "clean" closure), the owner will not have to file a Post-Closure Plan. However, if the Closure Plan does not lead to de-contamination, the Post Closure Plan must describe and provide for maintenance and monitoring of the site for up to 30 years. Approval of a "clean" Closure Plan is valuable to operators.

Currently there are 41 permitted hazardous waste treatment, storage, and/or disposal facilities in Indiana. Twenty-seven of these facilities are storage only, two are disposal only, 11 are treatment and storage, and one is a treatment, storage, and disposal facility.

Permitting History

From July 1, 1989, to March 30, 1994, OSHWM received 276 requests for hazardous waste permits or permit-related approvals. The Office received an average of 51 applications per year, ranging from 40 in 1990 to 64 in 1993. The largest number of requests (113) was for Closure and Post Closure Plan approvals. The second largest group of requests was for Class I modifications. Exhibits 15 and 16 illustrate hazardous waste permitting activity from 1989 through 1994.

Exhibit 15. Hazardous Waste Permitting Activity: FY89 - FY94.

Year	Total Permit Applications Received	Total Permit Decisions	Permits Pending	Annual % Change Pending	Pending as % of Permits *
FY88			10		
FY89	51	54	7	-30%	12%
FY90	40	31	16	129%	34%
FY91	50	40	26	63%	39%
FY92	51	45	32	23%	42%
FY93	64	67	29	-9%	30%
**FY94	20	17	32	10%	65%
Total	276	254			

* Pending as a % of possible permit decisions.
 ** Reflects activity through March 30, 1994.

From July 1, 1989, to March 30, 1994, OSHWM approved or denied 254 permit applications, including ten Closure and Post Closure Plans that were pending on July 1, 1989. Hazardous waste Closure and Post Closure Plans are important to operators. Consequently, these plans comprised 48% of all decisions, even though they were only 41% of all applications. Class 1 modifications comprised a somewhat smaller proportion of total decisions than of total applications (29% versus 34%). Aside from these two categories, applications and decisions were received and issued in roughly the same proportion.

Exhibit 16. Hazardous Waste Permitting Applications and Decisions: FY89 - FY94 .

Type of Permit							
	Class 3		Class 2	Class 1	Renewal	Closure/	
Year	Operating	Modification	Modification	Modification		Post-Closure	Total
Applications							
FY89	18	4	N/A	1	N/A	28	51
FY90	5	3	N/A	7	N/A	25	40
FY91	8	5	2	13	2	20	50
FY92	1	6	2	19	0	23	51
FY93	2	2	3	37	5	15	64
* FY94	0	0	0	17	1	2	20
Total	34	20	7	94	8	113	276
%	12.3%	7.2%	2.5%	34.1%	2.9%	40.9%	100%
Decisions							
FY89	5	0	N/A	0	N/A	49	54
FY90	12	2	N/A	5	N/A	12	31
FY91	7	0	0	10	0	23	40
FY92	4	7	3	11	0	20	45
FY93	6	5	2	36	2	16	67
*FY94	0	0	1	12	1	3	17
Total	34	14	6	74	3	123	254
%	13.4%	5.5%	2.4%	29.1%	1.2%	48.4%	100%
* Reflects activity through March 30, 1994.							

Priorities

Unlike the solid waste program, the hazardous waste permit program sets its priorities in conjunction with the Environmental Protection Agency (EPA). At the beginning of each fiscal year, OSHWM and the EPA review the past year's performance and determine the next year's priorities. Currently, no effort is made to rank the processing of one type of permit over another.

Pending Hazardous Waste Permits

As of March 30, 1994, the Office had 32 hazardous waste applications pending. Five of these applications were renewals, six were Class 3 modifications, one was a Class 2 modification, and 20 were Class 1 modifications. The OSHWM cannot identify any specific reason for delays common to all 32 applications.

Backlogged Hazardous Waste Permits

As indicated earlier, beginning in July 1995, P.L. 16-1994 will require OSHWM to issue permit decisions within certain time frames. The time frames for each hazardous waste permit are as follows:

- ! 365 days for a new permit or a Class 3 modification for a disposal facility.
- ! 270 days for a Class 3 modification for a treatment or storage facility.
- ! 120 days for a Class 2 modification.
- ! 60 days for a Class 1 modification.

The law does not specify any deadlines for renewals. Given the above deadlines, six Class 3 permit modifications, one Class 2 permit modification, and 20 Class 1 permit modifications would be backlogged.

Reasons for Backlog of Solid and Hazardous Waste Permits

OSHWM has 337 pending permits, 98 of which would not meet the deadlines imposed by P.L. 16-1994. OSHWM offers both specific and general reasons for its backlog in both solid and hazardous waste permits. Certain permit applications have been under litigation for several months, while others contain incomplete information or continually change. In general, however, the primary reason given for the backlog is the Office's inability to hire, train, and retain adequate staff. The uncertainty surrounding the permit program in 1993 added to the staffing difficulties. In addition, new rules promulgated in 1989 substantially increased the amount of information necessary to review a solid waste permit. The submission of Closure and Post Closure Plans, methane monitoring plans, groundwater monitoring plans, and financial assurance capability became part of the requirements for permit approval. Besides new rules, new legislation has also increased the amount of information required in permit applications. For example, in 1990 new legislation required all solid waste permit applicants to submit Good Character information and a Demonstration of Need. Despite these additional review requirements, no new staff was added in either 1989 or 1990.

Eliminating the Backlog of Permit Applications

OSHWM has implemented changes that will enable the Office to reduce or eliminate its permit application backlog. P.L. 16-1994 increases the funding for OSHWM which will enable it to hire and train additional staff. However, the law does not provide for salary increases, and the Office may still experience difficulty retaining staff. Second, as part of an agency-wide decision, OSHWM has implemented Total Quality Management (TQM). The staff believes that the adoption of TQM has allowed them to improve the permit review process. As evidence, they cite 74 permit decisions issued in the last 12 months in the Solid Waste Division. Indeed, as shown in Exhibit 14, permit decisions increased dramatically -- from 32 in 1991 and 46 in 1992, to 83 in 1993. Additionally, the Office will use consultants to review some permits and will make a request to the State Personnel Department for overtime for permit staff. While these changes appear to address the backlog, their effectiveness cannot yet be evaluated.

Office of Solid and Hazardous Waste Management Staffing and Funding

In addition to issuing permits, OSHWM regulates solid and hazardous waste disposal facilities through inspections and data collection. The Office also assists local solid waste management districts in implementing short and long range waste management plans.

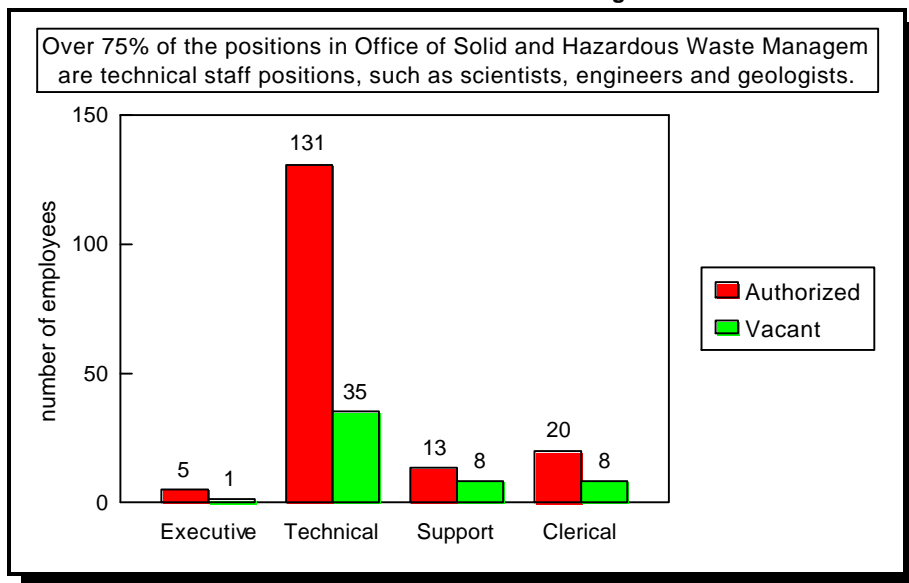
Staffing

As of March 1994, OSHWM had 169 approved positions. Over three-quarters, or 78%, of these positions were technical staff positions, such as chemists, engineers, geologists, and environmental scientists. The remaining positions were clerical, support staff, and executive staff. Exhibit 17 illustrates the Office's staffing and vacancies.

Fifty-two positions, or 31%, of the total 169 positions were vacant as of March 1994. Although the technical staff positions had the largest number of vacancies, the support and clerical positions experienced a greater percentage of vacancies. Twenty-seven percent of the technical staff positions were vacant. Among the support staff positions, 62% were vacant. Forty percent of the clerical staff positions were vacant, while 20% of the executive level positions were not filled. IDEM's Solid and Hazardous Waste

Management staff identified a lack of funding as the primary reason for these vacancies.

Exhibit 17: Office of Solid and Hazardous Waste Management

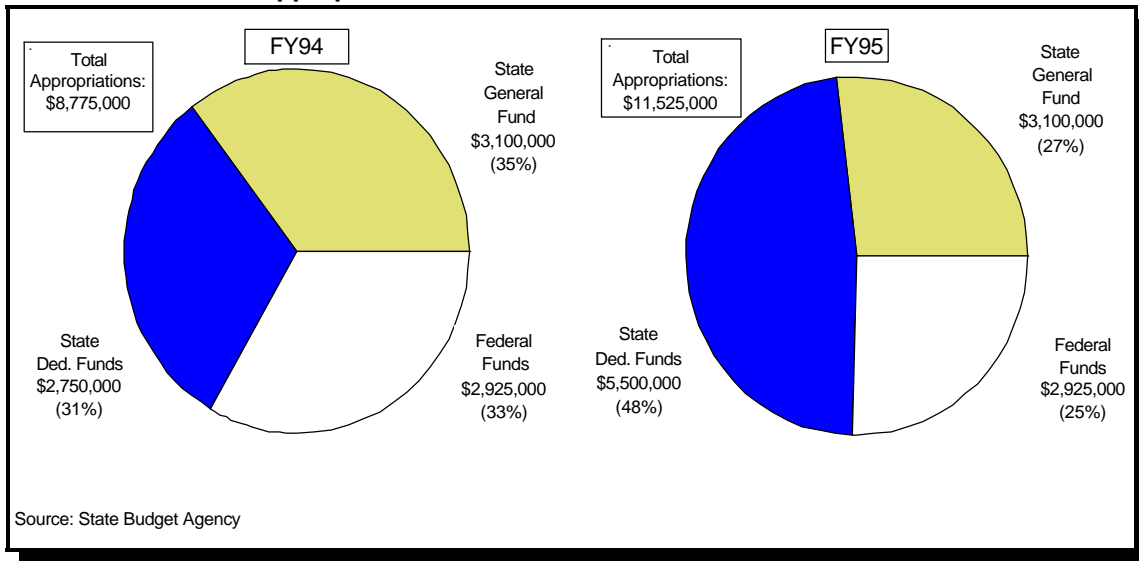


Funding

Total Funding

OSHWM will receive a total of approximately \$8.8 million in FY94, assuming all outstanding fees are collectible by June 30, 1994. In FY95, OSHWM will receive a total of \$11.5 million. Neither State General Funds nor federal funds increase from FY94 to FY95. In FY95, State General Funds will comprise 27% of OSHWM's total funding, dedicated funds will contribute 48%, and federal funds will provide 25%. Exhibit 18 illustrates OSHWM's funding.

Exhibit 18. OSHWM Appropriations: FY94 - FY95.



State General Fund

OSHW will receive \$1.8 million from the State General Fund for its solid waste programs in FY94 and FY95. For hazardous waste programs, the Office will receive \$1.3 million in FY94 and FY95.

State Dedicated Funds

OSHW will receive up to \$2.75 million from the Environmental Management Permit Operating Fund, established by P.L 16-1994, in FY94. The actual amount received will depend upon the revenue from current outstanding billings. In FY95, solid waste programs will receive \$2.7 million while hazardous waste programs will receive \$2.8 million. The source of revenue for the Environmental Management Permit Operating Fund is permit application and operating fees.

Federal Funds

Solid waste permit programs are primarily state programs mandated by state laws. Consequently, federal funding for these programs is limited. In FY94 and FY95, OSHWM will receive \$25,000 in federal funds. Hazardous waste programs, which are federally mandated, will receive \$2.9 million in federal funding in both FY94 and FY95.

Uses of New Funding

With the additional \$4.3 million, OSHWM plans to fill vacant positions and create new positions. The cost of filling every currently vacant position at the base salary for that level is approximately \$1.6 million. This estimate includes fringe benefits but does not include indirect costs or salary increases for state employees. The office will use the remainder of the \$4.3 million to create new positions. Creating new positions is a lengthy process, and OSHWM is currently not able to provide detailed descriptions of the new positions. Specific new staffing plans may be available by July 1, 1994. In general, OSHWM plans to increase its technical and clerical staff by a maximum of 85 persons.

Chapter 5: Superfund

Introduction

The goal of the Superfund program is to clean up abandoned sites that have been contaminated by hazardous substances. The cleanup of these sites is a complex process involving the state, the Environmental Protection Agency (EPA), and the responsible parties. The following discussion will briefly describe the administration of Superfund activities, the cleanup process, state and federal funding, and the state's pursuit of funds from responsible parties.

Administration Of Superfund Activities

The Office of Environmental Response (OER) within the Indiana Department of Environmental Management (IDEM) administers Superfund activities in the state. This office directs the initial site investigation, the actual site cleanup and maintenance, and communication with the EPA. IDEM's Office of Management, Budget, and Analysis (OMBA) and Office of Legal Counsel provide accounting, billing, and legal services.

Identifying and Cleaning Up Superfund Sites

Virtually anyone may report a site allegedly contaminated by hazardous substances. Private citizens, county health departments, community groups, other state agencies, and the EPA have all referred sites to OER. A Site Investigation team investigates all referred sites, examining them in order of their apparent urgency. A site investigation has several possible outcomes. The site may require an immediate but short-term cleanup. It may be referred to the state cleanup program, which is a program for contaminated sites that are not hazardous enough to become Superfund sites. Also, the site may qualify for other specialized programs.

However, if the site is potentially a Superfund site, OER staff complete a Preliminary Assessment and score the site on the Hazard Ranking System (HRS). Developed by the EPA, the HRS is a national scoring system that measures the site's potential for harm, such as the nature of the substance involved and its impact on humans. The HRS scoring criteria are strict and specific. The Site Investigation, Preliminary Assessment, and scoring of a site require approximately 1,000 staff hours. EPA rules allow OER to nominate the site for the National Priority List (NPL) if the site scores above 28.5 on the HRS. If the EPA accepts the site onto the NPL, the site may become a Superfund site. Due to the strict scoring criteria, only five to ten percent of all sites initially referred to OER will become Superfund sites.

A Superfund site currently proceeds through four additional stages after its acceptance to the NPL. However, since the Superfund program is scheduled for federal reauthorization as early as 1995, this process may change in the future. Exhibit 19 sets out the four stages as well as the number of Indiana sites in each stage of cleanup.

Indiana has 34 current NPL sites and three delisted sites. A delisted site is a site that has been removed from the NPL because it has been cleaned up. Of the current sites, an average of 8 years has elapsed since their placement on the NPL. The delisted sites spent an average of 7 years on the NPL. The length of time Indiana sites are on the NPL compares favorably with recent Congressional Budget Office estimates that Superfund sites will spend an average of 13 to 15 years on the NPL.

Exhibit 19. Stages of Superfund Site After Acceptance to NPL.

Stage	Title	Action(s)	Federal Funds	Number of Sites
1	Remedial Investigation and Feasibility Study	Extensive sampling and analysis. Evaluation of cleanup alternatives. Formal choice of cleanup method.	100%	15
2	Remedial Design	Development of a detailed cleanup plan.	90%	7
3	Remedial Action	Implementation of cleanup plan.	90%	10
4	Operation and Maintenance	Continued monitoring and maintenance of site.	0%	2

Either the state or the EPA may lead the cleanup efforts at a Superfund site. The EPA and the state reach a cooperative decision concerning the lead agency. Currently, the state directs cleanup efforts at 4 of the 34 current Superfund sites in Indiana, including the only state lead mega-site in the United States.

Funding for Site Investigation and Superfund Cleanup***Responsible Party Versus Government Funding for Cleanup***

If a responsible party or parties exist for a particular site, this party will clean up the site under EPA or state supervision. In this case, the responsible party bears the direct cost of cleanup, and the state or EPA may also bill the party for its oversight costs. In Indiana, responsible parties fund 18 of the current 34 Superfund site cleanups. When a responsible party does not exist, or is insolvent, the state and the EPA bear the initial cost of cleanup. As illustrated in Exhibit 19, federal funds comprise 90-100% of the total funding. The state funds 10% of some stages and all of the Operation and Maintenance stage, which may last up to 30 years. However, if the state or an Indiana municipality were responsible for the site contamination, the EPA would fund only 50% of the cleanup costs. The EPA has not held the state liable for the contamination at any of Indiana's current Superfund sites. Both the state and the EPA may subsequently pursue reimbursement from responsible parties.

The Hazardous Substances Response Trust Fund

The Hazardous Substances Response Trust Fund is a state dedicated fund. The sources of revenue for this fund are the Hazardous Waste Land Disposal Tax, accrued earnings of the fund, reimbursements to the fund, and fees and penalties paid for underground storage tanks containing substances other than petroleum. The Hazardous Substances Response Trust Fund provides funds for the state match of federal Superfund money, emergency state assistances, and state cleanup of other contaminated sites. As of November 30, 1993, the balance in this fund was \$21.5 million. The revenues into this fund during FY93 were approximately \$2 million. Annual revenue accruing to the fund is expected to decrease as industry adopts pollution prevention plans.

Funding for Site Investigation

By virtue of a Cooperative Agreement between the EPA and OER, the federal government funds all 15 positions in the Site Investigation and Preliminary Assessment section. For federal fiscal years 1994-1996, the grant is for approximately \$4.3 million, although it is subject to revision each year. The grant funds contractual services as well as IDEM's costs for personnel, travel, and equipment. OER proposes a budget and staffing level to the EPA as part of the grant application. The EPA then modifies and/or

approves the application. Although this staff is federally funded, state hiring restrictions can affect these positions.

Funding for Superfund Cleanup

As indicated earlier, when a responsible party does not exist, the state and the EPA share the costs of cleanup of a Superfund site. The state must present a separate grant application to the EPA for each site in order to receive federal funds. Each dollar granted by the EPA is for a specific activity performed at a specific site. The source of funds for the state portion of Superfund costs is the Hazardous Substances Response Trust Fund.

An additional source of revenue for the Hazardous Substances Response Trust Fund is cost recovery from responsible parties. According to IDEM staff, personnel costs incurred prior to 1989 are uncollectible due to insufficient record keeping. The OMBA estimates that, since 1989, the state has incurred approximately \$2.8 million in recoverable costs. Of that \$2.8 million, \$0.64 million, or 23%, has been recovered. The state has received 100% of the costs billed to parties who had previously signed a Consent Decree. The unrecovered costs are attributable to parties who are either negotiating a settlement, bankrupt, or avoiding responsibility through corporate reorganization. Full cost recovery from these last two categories of parties is unlikely. IDEM has demonstrated its recognition of the necessity for cost recovery by recently hiring a Cost Recovery Coordinator, additional legal staff, and clerical support. IDEM has also automated staff activities records in order to document personnel costs.

Other Federal Funding

In addition to grants for Site Investigation and actual Superfund cleanup, IDEM receives EPA Core grants for staff who support Superfund projects but do not work directly on Superfund sites. IDEM has been successful in obtaining these grants. From federal fiscal year 1991 to 1993, Indiana's \$2.7 million grant was the fourth largest grant in the nation. OER spent approximately \$1.6 million of this grant by September 30, 1993. For federal fiscal years 1994 to 1995, Indiana will receive \$1.1 million remaining from its earlier grant plus an additional \$0.4 million, for a total of \$1.5 million in Core Grant funds. EPA Core grants require a 10% match from the state. The Hazardous Substances Response Trust Fund provides the funding for the state's share of Core grant costs.

In federal fiscal year 1994-1995, the grants identify three employee positions that provide full-time Superfund support and 17 positions that provide part-time Superfund support. For the full-time positions, the state pays ten percent of the cost of the position, while the EPA pays 90%. For partial positions, the EPA and the Trust Fund provide for only that portion of a position that supports Superfund activities. The EPA awards Core grants based on an application from the state and ultimately must approve of the amount of the Core grant and the positions it funds.

Current and Future Costs

To date, the state has not incurred a high cost of cleanup. Responsible parties fund cleanups at over half of Indiana's Superfund sites, and, in the remaining cases, the state does not incur substantial costs until the Remedial Design stage of cleanup. For its two largest sites, the state has received over \$5.9 million in federal cleanup funds: \$4.9 million for the Continental Steel site in Kokomo and \$1.0 million for the Galen Myers site in St. Joseph County. Other Indiana sites receive from \$25,000 to \$100,000 each in federal funds because cleanup costs are much lower at these sites.

However, based on cost estimates provided by the federal government, OER calculates that state Superfund costs will begin to grow rapidly in the next 2 to 3 years as more of Indiana's sites move into later stages of cleanup. In the next two to four years, the state will spend between \$18.1 and \$39.1 million on sites in the Remedial Design and Remedial Action phases. Beginning three years from now, three additional sites will enter the Operation and Maintenance stage. The state will spend between \$25.8 and \$55.6 million on the Operation and Maintenance phase, which may last from 5-30 years. For each of these estimates, the lower figure represents the state's expected cost at sites for which no responsible party exists. The higher figure represents these costs plus the costs at sites for which a potentially responsible party may exist but has not agreed to finance the cleanup.

Future Considerations

Much of Indiana's ability to obtain funding for Superfund cleanup depends upon its relationship with the EPA. In order to nominate a site to the NPL, Site Investigation staff must follow strict rules. In order to receive funds, OER staff must write detailed grant applications. IDEM's accounting, record keeping, and level of technical expertise must satisfy EPA requirements; otherwise, the EPA would be reluctant to award additional grants. Currently, OER staff maintain a good professional relationship with the EPA. Indiana is the only state in the nation to which the EPA has granted the lead on a Superfund mega-site, the Continental Steel site. In addition, IDEM continues to receive EPA grants in several areas.

Another element of Superfund site funding is cost recovery from responsible parties. As more of Indiana's sites move into the later stages of cleanup, the costs will mount. While cost recovery has not been pursued vigorously in the past, IDEM has recently hired additional staff for this purpose in the future. Since cost recovery efforts have only recently begun, an evaluation of these efforts is not possible.